[Keys to Fig. 1]

DVA data processing unit

E input unit

EM input medium

DRB data back reference

DB data bank

AM output medium

TM daily reports

TLE partial performance unit(s)

AF output format

VP pre-protocol

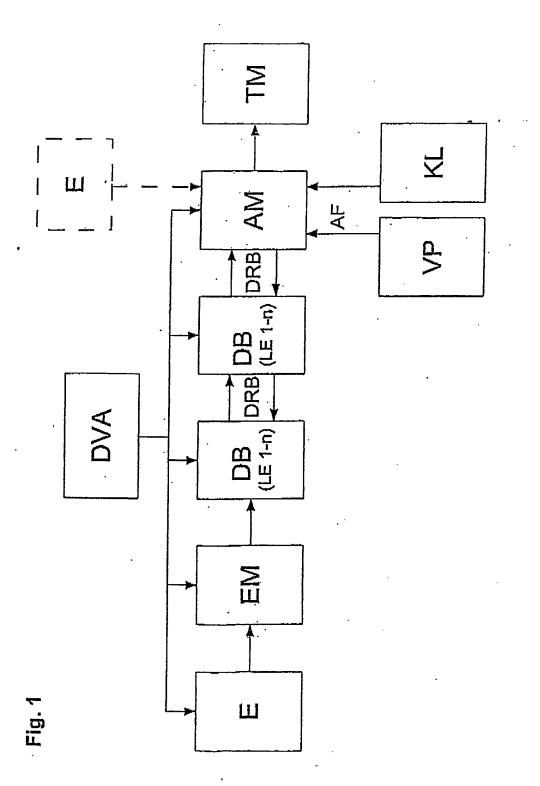
KL control lists

WO 2004/015599

PCT/DE2003/002531

1/8





[Keys to Fig. 2]

- LV performance items
- (A) LV items
- (B) LE performance units (all project-relevant operations, hierarchically grouped
- (C) complete coordination of all LV items with single or multiple performance units with amount/quantity; not every LE assigned one or some LV items
- (D) arrangement with grouping and detailing on the hierarchically (superordinate and subordinate groups) ordered LEs
- (E) works
- (F) costs
- (G) deadlines
- (H) locations

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Fig. 2

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LV-Pos

LV-Pos

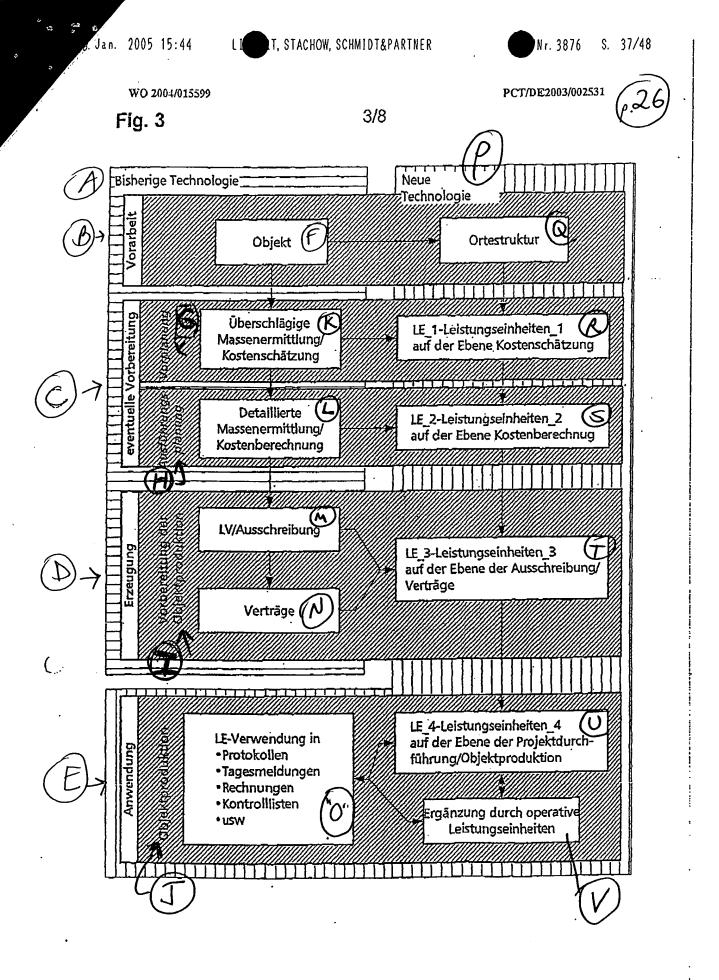
LV-Pos

LV-Pos

LV-Pos

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		-,	_		-	ъэ.	~ _

- A past technology
- B preliminary work
- C possible preparation
- D production
- E application
- F object
- G pre-planning
- H execution planning
- I preparation of object production
- J object production
- K rough mass determination, cost estimating
- L detailed mass determination, costing
- M LV allocation
- N contracts
- O LE employment in:
 - protocols
 - daily reports
 - calculations
 - control lists
 - etc.
- P new technology
- Q locating structure
- R LE 1 performance units 1 on the estimating level
- S LE 2 performance units 2 on the costing level
- T LE 3 performance units 3 on the allocation/contracts level
- U LE 4 performance units 4 on the level of project execution/object production
- V supplementation by operational performance units



[Keys to Fig. 4] object:design drawings working drawings CAD data construction descriptions В mass determination by hand and/or CAD C object data 1st stage building/object data as numerical file D calculation/evaluation Ε building geometry data: square meters, cubic meters of space + supplementary data (roof areas, windows, façades) F. G transfer to Н assignment using patterns alternatively: simultaneous production of local structure with plan input/ ı mass determination J result: space book 1 K result: key building data: BGF/BRI/NF-RT/ST L for determination price data bank, €/sq.m., €/cu.m. (from comparable structures) М Ν result: cost estimating 0 reference to supplementation at need

Q LE 1 performance units

R object LE 1 S project LE 1

Т works U costs V

deadlines W places

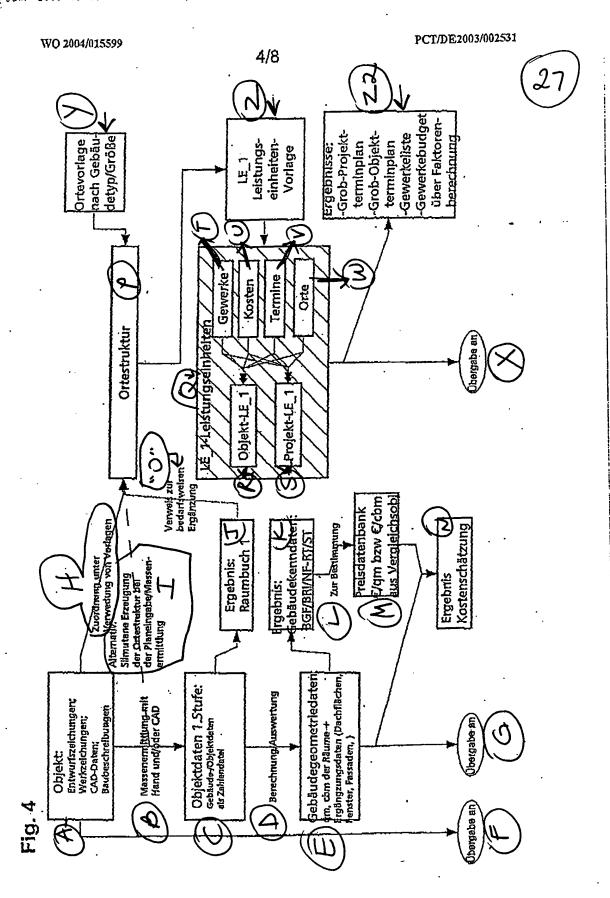
Χ transfer to

place patterns by building type/size Υ Ζ LE 1 performance units pattern

Z2 coarse project deadline program results: coarse object deadline program works list

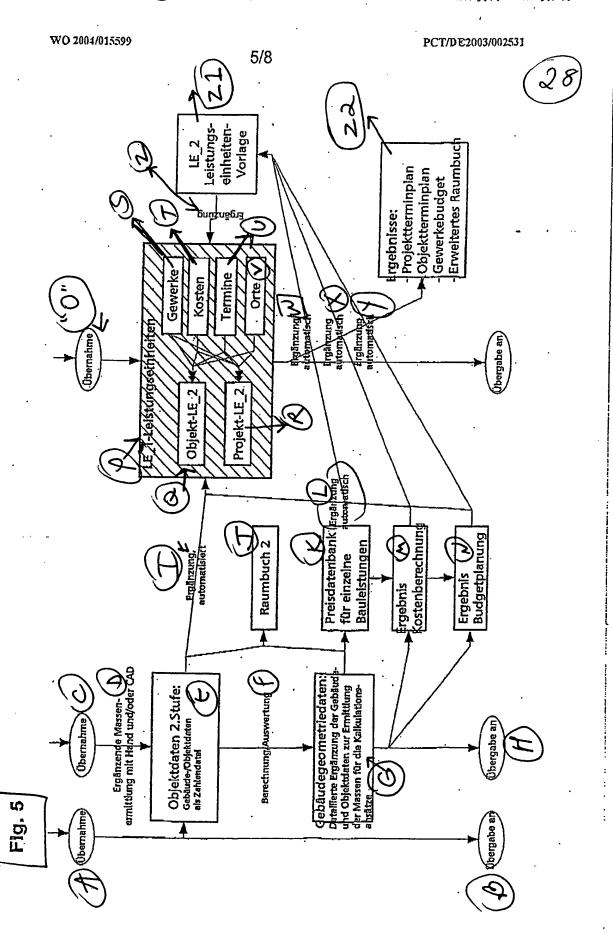
works budget or factor calculation

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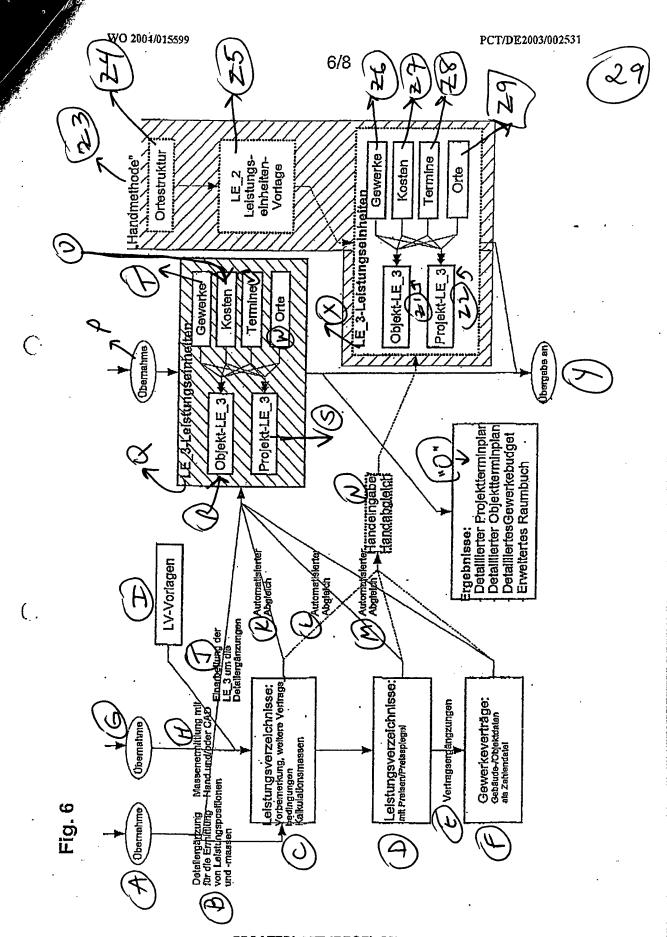
[Keys	s to Fig. 5]					
Α	transfer from					
В	transfer to					
С	transfer to					
D	supplementary mass determination, manually and/or CAD					
Е	object data 2nd stage: building/object data as numerical file					
F	calculation/evaluation					
G	geometrical building data: detailed augmentation of building and o	bject data				
	to determine measurements for estimat	ing				
Н	transfer to					
1	supplementation, automated					
J	space book 2					
K	price data bank for individual construction performances					
L	automatic supplementation					
М	result, cost accounting					
N	result, budget planning					
0	transfer from					
Р	LE 1 performance units					
Q	object LE 2					
R	project LE 2					
S	works					
Т	costs					
U	deadlines					
٧	locations					
W, X,	X, Y automatic supplementation					
Z	augmentation					
Z 1	LE 2 performance units pattern					
Z2	results: project deadline program object deadline program works budget expanded space book					

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[Keys to Fig. 6]

Α	transfer from
В	data supplementation for determination of performance items and masses
С	performance indexes:
	preliminary remarks, other contractual conditions, estimating measures
D	performance indexes with prices
E	contract additions
F	works contracts:
	building/object data
_	as numerical file
G	transfer from
Н	mass determination, manual and/or CAD
١,	LV patterns
J	working in LE 3 on detail additions
κ, ∟, ι Ν	M automated equalization
0	manual input, manual equalization results: detailed project deadline program
O	results: detailed project deadline program detailed object deadline program
	detailed object deadine program detailed trades budget
	expanded space book
	oxpanaca opaco book
Р	·
P Q	transfer from
P Q R	transfer from LE 3 performance units
Q	transfer from
Q R	transfer from LE 3 performance units object LE 3
Q R S	transfer from LE 3 performance units object LE 3 project LE 3
Q R S T	transfer from LE 3 performance units object LE 3 project LE 3 works
Q R S T U	transfer from LE 3 performance units object LE 3 project LE 3 works costs
Q R S T U V W X	transfer from LE 3 performance units object LE 3 project LE 3 works costs deadlines places LE 3 performance units
Q R S T U V W X Y	transfer from LE 3 performance units object LE 3 project LE 3 works costs deadlines places LE 3 performance units transfer to
Q R S T U V W X Y Z1	transfer from LE 3 performance units object LE 3 project LE 3 works costs deadlines places LE 3 performance units transfer to object LE 3
Q R S T U V W X Y Z1 Z2	transfer from LE 3 performance units object LE 3 project LE 3 works costs deadlines places LE 3 performance units transfer to object LE 3 project LE 3
Q R S T U V W X Y Z1 Z2 Z3	transfer from LE 3 performance units object LE 3 project LE 3 works costs deadlines places LE 3 performance units transfer to object LE 3 project LE 3 manual method
Q R S T U V W X Y Z1 Z2 Z3 Z4	transfer from LE 3 performance units object LE 3 project LE 3 works costs deadlines places LE 3 performance units transfer to object LE 3 project LE 3 manual method location structure
Q R S T U V W X Y Z1 Z2 Z3 Z4 Z5	transfer from LE 3 performance units object LE 3 project LE 3 works costs deadlines places LE 3 performance units transfer to object LE 3 project LE 3 manual method location structure LE 2 performance units pattern
Q R S T U V W X Y Z1 Z2 Z3 Z4 Z5 Z6	transfer from LE 3 performance units object LE 3 project LE 3 works costs deadlines places LE 3 performance units transfer to object LE 3 project LE 3 manual method location structure LE 2 performance units pattern works
Q R S T U V W X Y Z1 Z2 Z3 Z4 Z5 Z6 Z7	transfer from LE 3 performance units object LE 3 project LE 3 works costs deadlines places LE 3 performance units transfer to object LE 3 project LE 3 manual method location structure LE 2 performance units pattern works costs
Q R S T U V W X Y Z1 Z2 Z3 Z4 Z5 Z6	transfer from LE 3 performance units object LE 3 project LE 3 works costs deadlines places LE 3 performance units transfer to object LE 3 project LE 3 manual method location structure LE 2 performance units pattern works



ERSATZBLATT (REGEL 26)

[Keys to Fig. 7]

```
Α
      LE 4 performance units
В
      object LE 1
C
      project LE 1
D
      works
Ε
      costs
F
      deadlines
G
      places
Н
      data equalization
      detection of all supplementations including remarks
J
      operational performance units
K
      pre-protocol:
Р
      performance units with three (or x) week time limit
             without extension, with reported and checked
             performance status, processing status and delay reports
             protocol LE from preceding protocol with deadline data
             condition:
                                  (italics)
             contractual deadlines (identified as such)
             current daily report LEs
             supplements to LEs
L
      protocol
Q
             selection from performance units with addition
             as indicated in pre-protocol - preceding protocol
             with additions: deadlines, delays, performance
             status reports/control report, additions
             measures
М
      daily reports:
R
             current LEs to detect performance status with other current
             project operation data
             defects
             company data on LEs
             company LEs
             measures
Ν
      control lists:
S
             detection of performance status of LEs having own check
             lists and other project-operation-relevant data
             comparison with reported data in daily reports
             comparison of defects
             measures
```

[Keys to Fig. 8]

- A LE 0 performance units 0
- B performance units LE 9
 These data represent the original data from the determination of measurements of building/AA/BNK/planning etc. and are prepared manually and/or with CAD support
 Depending on planning level, these are carried in increasingly detailed form. The data collection and structure corresponds to the past form of data detection and processing, used in the various methods employed. In future, they will be stored in this form, permitting access or coordination with the LE structures.
- C LE 1 performance units 1 on the cost estimating level performance units LE 1:
- D performance descriptions at time of cost estimating key data: building type, size NF/FF, cubic content etc. for cost estimating, possibly in connection with calculation of factors performance units contain all project-relevant operations to date, insofar as required
- E LE 2 performance units 2 on the cost-calculating level
- F performance units LE 2
 performance descriptions at time of cost calculation,
 detailed trades organization, budget planning etc.
 The performance units contain all project-relevant operations
 to date, insofar as required. The performance units are
 associated with each other and so can be grouped and/or
 detailed
- G LE 3 performance units 3 on the level of allocation/contracts
- H performance units LE 3
 performance descriptions at time of allocation and contracts
 with detailed trades organization, contract costs etc.
 The performance units contain all project-relevant
 operations to date insofar as required. The performance
 units are associated with each other and so can be grouped
 and/or detailed
- LE 4 performance units 4on the level of project/object production
- J performance units LE 4 performance descriptions of project. They reproduce all project-relevant transactions. They can be grouped, detailed and represented by location, cost, trades and deadlines.

WO 2004/015599

8/8

PCT/DE2003/002531

Fig. 8

Leistungseinheiten LE 0 LE_0-Leistungseinheiten_0 Diese Daten stellen die Urdaten aus der Massenermittlung dar. Gebäude/AA/BNK/Planung usw und werden mit Hand und/oder CAD-Unterstützung erstellt. Je nach Planungsstufe werden diese in aufsteigend detaillierter Form geführt. Die Datersammlung und struktur entspricht der bisherigen Form der Datenerfassung und -verarbeitung, verwendet in den verschiedensten angewendeten Methoden. Sie werden in Zukunft in einem Format gespeichert, das ein Zugriff bzw eine Zuordnung zur den LE-Strukturen erlaubt. Leistungseinheiten LE 1 LE_1-Leistungseinheiten_1 Leistungsbeschreibungen zum Zeitpunkt der Kostenschätzung auf der Ebene Kosten-Kenndaten: Gebäudetyp, Größe in NF/SF, Kubatur usw. zur schätzung Kos- tenschätzung, eventuell in Verbindung mit einer Faktorenkalku- lation. Die Leistungseinheiten enthalten alle projektrelevanten Vorgänge zu diesem Zeitpunkt, soweit nötig. LE_2-Leistungseinheiten_2 Leistungseinheiten LE 2 Leistungsbeschreibungen zum Zeitpunkt der auf der Ebene Kosten-/Kostenberechnung, detaillierte Gewerkegliederung, berechnug Budgetplanung. usw. Die Leistungseinheiten enthalten alle projektrelevanten Vorgānge zu diesem Zeitpunkt, soweit notig. Die Leistungseinheiten sind untereinander zugeordnet, sind damit gruppierbar bzw. detallijerbar LE_3-Leistungseinheiten_3 Leisfungsbeschreibungen zum Zeitpunkt der Ausschreibung und auf der Ebene der Verträge mit detaillierte Gewerkegliederung, Vertragskosten. usw. Ausschreibung/Verträge Die Leistungseinheiten enthalten alle projektrelevanten Vorgänge zu diesem Zeitpunkt, soweit nötig. Die Leistungseinhelten sind untereinander zugeordnet, sind damit gruppierbar bzw. detaillierbar. LE_4-Leistungseinheiten_4 Leistungseinheiten LE_4 Leistungsbeschreibungen des Projektes. Sie geben alle projektauf der Ebene der Projekt-/ relevanten Vorgånge wieder. Sie sind örtlich, kostenmäßig, Objektproduktion /gewerke-maßig und terminlich gruppierbar, detaillierbar und ⁄darstellbar.